

Serial No.: 08/772,259

Docket No.: 1185\1018\STB

REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 1, 4 and 7 have been amended, and claim 10 has been added. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1-10 are pending and under consideration.

OBJECTION TO THE DRAWINGS:

The Office Action recites that the drawings stand objected to for failing to disclose the claimed feature "display," set forth in independent claim 1. Accordingly, the claim recitation "display" has been removed from independent claim 1.

Therefore, it is respectfully requested that this objection to the drawings be withdrawn.

REJECTION UNDER 35 U.S.C. §112:

Claims 1-9 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Specifically, claims 1, 4 and 7 include antecedent informalities. Therefore, claims 1, 4 and 7 have been amended to remove these informalities. Thus, it is respectfully requested that this rejection of claims 1-9 be withdrawn.

REJECTION UNDER 35 U.S.C. §102(b):

Claims 1-3 and 8 stand rejected under 35 U.S.C. §102(b) as being anticipated by Yokoyama et al., EP 544,322. This rejection is respectfully traversed.

By way of review, independent claim 1 sets forth a light control element having a light entrance side and a light emitting side. The light entrance side receives light emitted from a light source and exiting from a light guide plate, with the light entrance side having a prismatic surface with repeated projections and with slopes inclined with respect to the plane of the light control element. Only part of the repeated projections define a light diffusible surface to generate a diffused light while the light is radiating within the light control element toward the light emitting side such. Therefore, a surface of the light emitting side is illuminated in a substantially uniform manner, reducing light effects of the reflecting sheet.

Yokoyama et al. sets forth light guide plate with a surface above the reflective surface of the light guide plate having a multiplicity of projections and depressions. By selection of the shape of depressions and control of the roughness of rough surfaces, an enhanced uniform brightness distribution can be provided.

The Office Action recites that Yokoyama et al. discloses the presently claimed features of independent claim 1, for example. Applicants respectfully disagree.

The shaped depressions of Yokoyama et al. are within a light guide plate, whereas independent claim 1 recites that the light entrance side receives "the light emitted from a light source and exiting a light guide plate." Thus, the claimed light control element of

independent claim 1 is separate from the light guide plate, while Yokoyama et al. only discloses or suggests having diffusing depressions within a light guide plate.

In addition, it is respectfully submitted that there would not have been motivation to modify Yokoyama et al. to set forth the presently claimed invention. Yokoyama et al. only discloses placing depressions within a light guide plate to generate uniformity in a brightness distribution of a LCD display device. There would not have been motivation to modify the depressions of Yokoyama et al. to be placed outside of the light guide plate, as the placement of the depressions was intentionally chosen to be within the light guide plate to improve the uniform brightness distribution.

In addition, the projections and depressions of Yokoyama et al. fail to disclose the claimed "wherein only part of said repeated projections define a light diffusible surface," as recited in independent claim 1. As illustrated, for example, in FIG. 12, of Yokoyama et al., the entire projections of Yokoyama et al. include rough or diffusible material. In addition, it would not have been obvious to modify Yokoyama et al. to include only partially rough or diffusible material on the projections, as this would have reduced the effectiveness of the disclosed uniform brightness distribution. Yokoyama et al. clearly sets forth in the disclosed embodiments that to produce the disclosed uniform brightness distribution all the projections include the rough or diffusible material.

Therefore, for at least the above, it is respectfully requested that this rejection of independent claim 1 be withdrawn and independent claim 1 be allowed. In addition, for at

least similar rationale, it is respectfully submitted that claims 2-3 and 8 are also in proper condition for allowance.

REJECTION UNDER 35 U.S.C. §103(a):

Claims 4-7 and 9 stand rejected under 35 U.S.C. §103(a) as being obvious over the prior art of FIGS. 11 and 12 illustrated in the present application (hereinafter Prior Art), in view of Ishikawa et al., U.S. Patent No. 5,600,455, and Yokoyama et al.. This rejection is respectfully traversed.

By way of review, independent claim 4 (not substantively amended herein) sets forth a surface light source device of side light type having a light guide plate, a reflecting sheet, a primary light source, and a light control element disposed along the exiting surface of the light guide plate. The light control element has a light entrance side with a prismatic surface adjacent to the light guide plate, with the prismatic surface having repeated projections with slopes, at least part of the slopes defining a light diffusible surface to generate diffused light while the light is within the light control element. Therefore, a surface of a light emitting side of the light control element is illuminated in a substantially uniform manner, reducing light effects of the reflecting sheet.

Prior Art discloses a surface light source device including a light source 7, a light guide plate 2, a prism sheet 5, and light diffusible sheet 6. Prism sheet 5 includes a plurality


of sloped projections and serves to correct for light directivity problems of light exiting light guide plate 2, as discussed in the present application on pages 3-4:

"Prism sheet 5 allows the main component of the illumination light L1 from scattering light guide plate 2 to come inside from the light source side's slopes...M1 of the triangular projections, whereupon the prism sheet 5 reflects the main component by the slopes...M2 opposite to the light-source-side slopes M1 and then emits it after reflecting by the slops M2. As a result, the main emitting direction of the illumination light L1 is corrected to the frontal direction (normal direction) of the exiting surface. Through this action , the surface light source device 1 of side light type can emit the illumination light frontwards **more efficiently as compared with the surface light source device of side light type plate having a uniform thickness.**"

However, in this method of illumination of Prior Art, at least one problem includes seeing the reflecting surface through the display of the surface light source device.

Thus, Prior Art is directed toward improving light directivity of an angled side light guide plate.

Yokoyama et al. sets forth diffusing light within a light guide plate, the light guide plate being of uniform thickness. The light within the light guide plate 2 is diffused by having a plurality of projections with rough or diffusing material being placed directly above the reflecting sheet 4. These diffusing projections generate a uniform brightness distribution in a light guide plate of uniform thickness.



However, it is respectfully submitted that there would not have been motivation to combine the diffusing projections of Yokoyama et al. with Prior Art to set forth the features of independent claims 4 and 7, and new claim 10. As discussed above, the prism sheet of Prior Art corrects for directivity problems resulting from an angled light guide plate. Therefore, the diffusing projections of Yokoyama et al. are not relevant to the angled projections of prism sheet 5 of Prior Art, as the diffusing projections of Yokoyama et al. fail to correct for the problems associated with prism sheet 5, especially since Yokoyama et al. is related to a uniform thickness light guide plate and Prior Art is related to an angled light guide plate. Thus, it would not have been obvious to combine Yokoyama et al. with Prior Art to set forth the present claimed features of independent claims 4, 7 and new claim 10.

In addition, independent claims 7 and 10 require that only part of the repeated projections define a light diffusible surface. However, as illustrated in the figures of Yokoyama et al., all the projections include diffusible material or rough surfaces.

The Office Action also recites that Prior Art may be modified in view of Ishikawa et al. to set forth the features of independent claims 4, 7 and new claim 10.

Ishikawa et al., as illustrated in FIG. 10, is utilized in a uniform thickness light guide plate environment. Therefore, as discussed above, there would not have been motivation to combine Ishikawa et al. with Prior Art, as Ishikawa is directed to generating a uniform distribution of light in a uniform thickness light guide plate, while Prior Art suffers from deficiencies due to the use of an angled light guide plate.

In addition, the Office Action recites that it would have been obvious to combine Yokoyama et al. and Ishikawa et al. with Prior Art "for the purpose of controlling a diffusing light beam and simultaneously reducing the light effects of the reflecting sheet while also obtaining the advantage of reduction of the components used in the optical device." It is respectfully submitted that this recited motivation is **not** discussed or suggested in Yokoyama et al., Ishikawa et al., or Prior Art. This recited motivation is **only** discussed in the present application, to at least overcome deficiencies of Prior Art.

Therefore, it is respectfully submitted that it is impermissible hindsight to now argue that it would have been obvious to utilize features of Yokoyama et al. or Ishikawa et al. to modify Prior Art using the motivation set forth in both the pending independent claims and the present application.

Yokoyama does not discuss or suggest utilizing the disclosed diffusing projections either outside of the light guide plate or to reduce effects of the reflecting sheet in an angled light guide plate used in Prior Art. Rather, Yokoyama et al. is only directed toward generating a uniform brightness distribution in a uniform thickness light guide plate environment.

Further, Ishikawa et al. also fails to discuss or suggest utilizing the disclosed diffusing slopes to reduce effects of the reflecting sheet in an angled light guide plate used in Prior Art. Rather, Ishikawa et al. is only directed toward generating a uniform brightness distribution **and prevent striped Moire effects** in a uniform thickness light guide plate environment.

Ishikawa et al. is directed to prevent these Moire strip effects from occurring, not to correct for deficiencies discussed above regarding prism sheet 5 of Prior Art.

Lastly, the Office Action recites that the combination of Yokoyama et al. and Ishikawa et al. with Prior Art would disclose the claimed feature of diffusing light while the light is radiating within the claimed light control element. Specifically, for example, independent claim 4 recites "at least part of said slopes defining a light diffusible surface to generate diffused light while the light emanating from the light guide plate is radiating within the light control element." Thus, the light exiting the light guide plate requires the diffusing to be generated within the light control element. It is respectfully submitted that the combination of Prior Art, Yokoyama et al., and Ishikawa would only diffuse light as the light is either entering a light control element or when light is exiting a light control element, not while the light is radiating within the light control element. All independent claims recite similar "radiating within" language, with differing scope and breadth.

Therefore, for at least the above, it is respectfully requested that the rejection of independent claims 4 and 7 be withdrawn and independent claims 4 and 7 be allowed. In addition, for similar rationale, it is respectfully submitted that independent claims 1 and new claim 10, and the remaining dependent claims are also in proper condition for allowance.

It is noted that independent claim 4 has not been substantively amended, rather new independent claim 10 has been added including similar features as independent claim 4 but with at least the different claimed feature of "with only part of said repeated projections defining a

light diffusible surface to generate diffused light," rather than the claimed feature of "at least part of said slopes defining a light diffusible surface to generate diffused light," of independent claim 4.

CONCLUSION:

In accordance with the foregoing, it is respectfully submitted that all outstanding objections and rejections have been overcome and/or rendered moot. And further, that all pending claims patentably distinguish over the prior art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

If the Examiner has any remaining informalities to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such informalities.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
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